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The days of working for only one company for a whole career are over. As a worker moves from one job to the next, their value to their next employer stems, at least in part, from the skills and knowledge he or she gained at work. It may seem like an odd idea, but who owns the skills and knowledge a worker gains on the job? Apparently, the companies you work for do. Even Jimmy John's has a noncompete agreement for sandwich-making.

Take Jerry Smith for example (not his real name, because he fears it would affect his future job prospects): He's an expert on speech recognition, but he can't use his deep knowledge of this technology at work anymore because he had signed a noncompete agreement with his former employer, promising not to work in the industry for two years after leaving the firm.

“I’ve been in this industry for 20 years and have a Ph.D. I walked in the door [of my former employer] with all this experience, and while I was there for 18 months they added, what, 2 percent to that?" he says. "Now they don’t want me

to work in speech at all?”

He's not alone. Employers are increasingly taking legal action to prevent former employees from taking their knowledge and skills to new jobs, using trade-secret laws and contracts that cover post-employment activity. The number of lawsuits over noncompete agreements and trade secrets has nearly tripled since 2000. Now Congress is about to go further, giving employers new powers to sue employees under federal law. But many economists and legal scholars are against it, armed with ample evidence showing that such a law would reduce innovation and an employee's incentive to learn.

If you think that such a broad legal interpretation might create obstacles for many employees seeking to change jobs—you’d be right.

Currently, laws vary significantly from state to state: Some states allow the enforcement of agreements that former employees will not work for a rival company for a period of time, while other states view such agreements as illegal. But even in those states in the latter case, judges have used trade-secret laws to limit what economists call employee mobility—the ability of workers to move from one job to the next.

Consider the case of Mark Papermaster. For 26 years, he worked at IBM in various product design-and-development roles involving microprocessor chips and computer servers. In 2008, he accepted a job with Apple in California to manage engineering for the iPod and iPhone. Although Papermaster had signed a noncompete agreement with IBM in 2006, that agreement could not be enforced under California law. Nevertheless, IBM sued, getting a judge to issue a preliminary injunction preventing Papermaster from taking the new job. The judge accepted IBM’s argument that Papermaster would “inevitably disclose” trade secrets in his new job, even though IBM did not compete with the iPod and iPhone. In the end, the parties settled the lawsuit under an agreement where Papermaster could only work for Apple after a six month unpaid vacation.

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Some states have significantly broadened the range of employee knowledge that employers can seek to protect under trade-secret law. In the past, trade secret law mainly protected only concrete knowledge: the formula for Coca-Cola, or the code of a software program. Now, in many states, the law also extends to cover less well-defined knowledge, such as employee know-how, customer relations, and knowledge that is not used commercially. It gives firms control over employee knowledge that goes far beyond true trade secrets, reaching into basic knowledge that employees need to do their jobs. While most employers don’t push the limits of these powers, an increasing number have done so.

The combination of expanding trade-secret law and the growing use of employment contracts covering post-employment activity has a huge impact on the career trajectories of many workers. Matt Marx, a professor at MIT Sloan School of Management, interviewed technical professionals who were frozen out of their industries for up to two years by employment restrictions. One scientist, reminded of his noncompete obligations by his former employer, took a job with a

firm in a different industry. But he grew frustrated with his inability to use the specialized skills he had developed during his Ph.D. studies. His unused skills atrophied during this “career detour,” a significant liability in fast-moving technical fields. After a year-and-a-half, he felt compelled to return to his former employer.

Another scientist took an “unpaid sabbatical” at a university; yet another worked in the industry secretly, hoping to avoid notice by his former employer; another, with years of experience, was forced out of the industry after being fired over a disagreement with the company founder. Many felt that noncompete enforcement was particularly unfair because their employers had only mentioned the agreements after they had accepted the job and begun work. Others, such as Jerry, felt it was unfair because it restricted the use of knowledge they had acquired before taking the job. Fair or not, noncompete agreements are taking an economic toll. For example, to avoid legal problems, one scientist took a job that did not use her specialized skills. “I intentionally looked for general-purpose programming, and I took a substantial pay cut to go there.”

But what about employers? It's true that trade secrets can really affect a company. Firms would be reluctant to pour millions of dollars into developing software if a rival could freely access the program code. Software code is typically protected as a trade secret and this protection is important for motivating firms to invest. State trade-secret laws provide civil remedies for the misuse of trade secrets and the federal Economic Espionage Act provides for criminal prosecution. In recent years, federal prosecutors have gone after a spate of Chinese competitors to U.S. firms, accusing them of stealing trade secrets.

In short, noncompete agreements limit the job opportunities of highly skilled workers. When their choices are so limited, employees have less incentive to develop new skills and new knowledge. Statistical analysis supports this: Comparing states that allow firms to enforce noncompete agreements to those that do not, Mark Garmaise of UCLA found that managers earn less and they receive incentive compensation less often in states with noncompete enforcement, all else equal. Other researchers have found a similar effect in states that provide employers stronger controls via trade-secret law.

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So it's important both to protect trade secrets from misuse and to preserve employee mobility. Historically, the law has sought to balance these two interests. However, when employers control not only true trade secrets but also general employee knowledge and skills, the net effect is it reduces investment and innovation. Garmaise found that states that allow employers to enforce noncompete agreements actually invest less per employee. And economists Sampsa Samila and Olav Sorenson found that in these states, venture capital investments generate fewer patents, fewer new firms, and less job growth.

Not only do employees have less incentive to innovate in these states, but it's no

surprise that employers have a harder time hiring talent, especially start-up firms. Bart Riley is a veteran tech entrepreneur. He recently joined a California clean-tech startup and sought to set up an office in Massachusetts, initially with about 10 engineers. But Massachusetts is one state where noncompete agreements are regularly enforced, and Riley quickly found that most of the people he wanted to hire were blocked by agreements with their former employers. Worse, evidence shows that states that enforce noncompete agreements experience something of a "brain drain." Matt Marx, along with co-authors Lee Fleming and Jasjit Singh, found that inventors tend to migrate to states that do not allow employers to enforce noncompete agreements.

The importance of employee mobility for innovation is illustrated by the phenomenal success of Silicon Valley. California prevents firms from enforcing noncompete agreements and researchers found that this explains the high level of job-hopping in Silicon Valley's computer industry. Legal scholars Ron Gilson and Alan Hyde connect Silicon Valley's greater employee mobility with its innovative successes relative to tech clusters in other states, such as the Route 128 cluster in Massachusetts.

But new federal trade secret legislation threatens to undermine California's regional advantage. The House Judiciary Committee just passed the Trade Secrets Protection Act (HR 5233); the Senate is considering a similar measure. These bills propose to introduce a federal civil action for trade-secret protection. The bipartisan supporters of these bills tout them as necessary to promote innovation and to prevent the loss of jobs from trade secret theft.

Thirty-one law professors have sent a letter to Congress arguing that there is no need for a federal law in addition to state laws. They note that state law protects employee mobility while the federal laws will not. This loss of balance can harm innovation: "Reducing mobility of labor impacts not only those employees who are directly affected…It also has an adverse impact on society by reducing the diffusion of skills and knowledge and stifling the innovation that flows from the sharing of ideas and information."

Orly Lobel, a law professor at the University of San Diego, told me that "any initiative to strengthen trade secret enforcement and post-employment restrictions sends a chilling message to people in the industry." Overly strong restrictions on employee mobility will discourage risk-averse workers from moving to jobs where their skills can be put to best use; restrictions will also inhibit workers from striking out to start their own companies.

Employee mobility and entrepreneurship have been wellsprings of American innovation, but research shows that over the last decade or so, workers are changing jobs and occupations less frequently and they are forming fewer high tech startups. The widespread use of noncompete agreements and expanded trade-secret law have contributed to these harmful trends. New laws that propose additional tools for employers to control former employees, without protecting employee mobility, are not a good idea. We need more Silicon Valleys, not fewer.